

## **Draft Mitigation Determination Approach for Use in the Feasibility Study**

### General Comments:

1. The LWG should not provide a draft a Biological Assessment (BA) with the draft FS. The draft FS should identify ESA species and critical habitat found within the Superfund Site and well known and likely conservation measures, including environmental work windows, that the cleanup alternatives may need to incorporate in order to assess them relative to effectiveness, implementability, and costs. The LWG should be reviewing BA's from other projects and needs to provide in the draft FS a list of these types of conservation measures with a reference list and conduct associated costs for potential conservation measures associated with the remedial alternatives.
2. EPA has not requested nor is it consistent with Section 7 consultation procedures for specific projects to produce a "programmatic" biological assessment on all alternatives in the FS. The LWG has indicated that it will do a 404(b)(1) analysis on all alternatives, which is appropriate given the requirements of 404(b)(1) and the broader scope of the CWA. EPA's initial consultation with the Services will be on the site-wide preferred alternative. Thus the LWG should prepare a draft BA which is focused on analyzing whether the preferred alternative will adversely affect the threatened species or critical habitat or whether the action will jeopardize the continued existence or recovery of the species. This sequence is consistent with the ROD process and timeline we have discussed which indicates a draft BA, which will include only content known at the time (e.g., list of species, project description, description of project area, description of species and habitat, inventories and surveys, and supporting references) should be provided after submission of the draft FS.
3. The term "programmatic" is not appropriate in this context and should not be used since it has distinct meaning for EPA in conducting ESA and 404(b)(1) consultations for the implementation of our programs rather than specific projects. EPA's initial consultation with the Services will be on the site-wide preferred alternative. This is a project specific action and this document and the draft FS needs to present it in that manner. It is acceptable to use the term site-wide BA or 404(b)(1) analysis to distinguish the scope of the initial analysis from potential future analysis that may be at a different level or scope.
4. CWA compliance, particularly avoiding or minimizing impacts and compensating for unavoidable loss of aquatic environment is not the same or interchangeable with the need to assess affects of a federal action on threatened or endangered species under ESA. Although there is overlap in information and analysis needed for the CWA and ESA, ESA consultation will be focused on the preferred alternative, not all possible alternatives that are considered. Thus, the BA will follow in time and have a different scope and focus than the CWA analysis (both 401 and 404) and generally should only take from it what may be relevant to evaluating the impacts (adverse or beneficial) to threatened or endangered species or their designated critical habitat from the proposed federal action. On the other hand, CWA 404(b)(1) addresses aquatic impacts from the cleanup alternatives of a wider scope than ESA. The LWG needs to understand that compliance with 404 is not synonymous with ESA. The first step is for the FS to analyze the different alternatives for impacts each may cause and what types of measures, BMPs, and other activities are appropriate and practical to avoid or minimize such impacts to waters of the US, both temporal and long-term. Then the FS needs to preliminarily analyze what unavoidable loss will occur that will require compensatory mitigation and then estimate the scope and costs of such compensatory mitigation appropriate for a FS level analysis. All three steps have cost implications but also may have relevance to one or more of the seven balancing criteria, e.g.,

short-term, long-term impacts, and implementability in the FS comparative analysis process. Also under CWA analysis, whether 404(b)(1) or 401, the FS will need to analyze known best management practices, containment, and other measures that dredging and capping actions will need to incorporate to avoid or minimize the impacts from resuspension to reasonably assure the actions will achieve water quality standards and reduce short-term impacts. A majority of the CWA analysis will be relevant in articulating the conservation measures to be employed to reduce adverse affects to the listed species in the project-specific BA.

5. The mitigation approach needs to include a preference for on-site (i.e., within the Superfund Site) work and projects to the extent practicable before looking to off-site mitigation. This memo does not lay out a path where value can be ascribed to on-site projects, which may have higher value to EPA and the services with regard to closer proximity of the mitigation to where the impacts occur when feasible. In this case, off-site work may require more acreage to be of equal compensatory value to acreage within the Superfund site area. Higher ratios of needed compensation for off-site mitigation compared to amount of impacted environment is consistent with Subpart J of the 404(b)(1) regulations, although it allows the flexibility to consider off-site and out-of-kind mitigation when the mitigation proposed is unlikely to compensate for impacts or is incompatible with existing uses, or where a certain habitat type has been disproportionally lost over time in the watershed. The draft FS should recognize the higher value of on-site mitigation projects and balance that against the additional cost. The LWG should present a process to evaluate actual mitigation costs for the draft FS at the next FS check-in meeting.

#### Specific Comments:

1. Introduction. The introduction indicates that the costs of mitigation will be considered “in addition to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) nine FS evaluation criteria.” These costs should be included as part of the direct costs of the remedial alternatives in the FS.
2. Page 2, pp 1, last sentence. The location of the mitigation and conservation measures taken will be important to determine both the level of affects the action may have on ESA species and whether survival and recovery of ESA listed species will be supported. This statement implies that actions taken anywhere in the Lower Willamette watershed, which is not defined in this document, will support ESA listed species. This may not be accurate and should not be assumed. Moreover, to meet CWA requirements and EPA’s goal for maximizing mitigation as close to where the impacts are incurred, mitigation within the cleanup area should be prioritized.
3. Page 1, pp 4. This paragraph should be deleted. See general comment 2 above.
4. Page 2, pp 1, sentence 2. An in-lieu of fee option will not work for ESA mitigation unless the money goes towards a specific project that NMFS has approved.
5. Page 2, pp 2. The Section 7 Biological Assessment is prepared for the EPA action and will analyze whether any take is likely to occur. The Biological Opinion is prepared by the Services and will determine whether any listed species is jeopardized or critical habitat is adversely modified by the proposed actions. While it is true that there are actions that can be taken to reduce the likelihood of these determinations, until they are presented all together in a proposed action, a de facto statement as to forecasting these outcomes cannot be made. This language needs to be stricken from the document.

6. Page 2, pp 3, sentence 2. In addition to evaluating the effects of the action on the aquatic environment, the effects to individual ESA species (including their prey and predators) need to be evaluated as well.
7. Page 2, pp 3, sentence 5. This approach needs approval by the Services before being conducted for the BA.
8. Page 2, pp 3, sentence 6. The draft FS mitigation costs and conservation measure costs, as well as the 404(b)(1) analysis and BA, should only discuss the affects of the proposed action under CERCLA authority (including removal actions), not separate non-CERCLA actions already taken or taken under other authority.
9. Page 2, pp 3. No mention of temporal loss is made in the memo. The memo should acknowledge that temporal loss and compensation for it will need to be considered.
10. Page 3, pp 1, sentence 2. In-situ treatment (GAC) should also be considered as a possible remedial activity.
11. Page 3, pp 1, sentence 3. MNR may require conservation measures if there is continued exposure of ESA-listed species to contaminants.
12. Page 3, pp 1, sentence 3. While this approach seems reasonable, further justification (i.e., discuss of successful MNR versus failure and costs of monitoring to establish these outcomes) should be provided in the draft FS.
13. Page 3, pp 2, bullet 1. Engineered & active capping should be added to the list in the 1st bullet.
14. Page 3, pp 2, bullet 3. Reference to Appendix A should be made after NMFS suggested values.
15. Page 4, pp 1, sentence 3. This statement is not correct. HEA habitat baseline values may need to be adjusted based on site-specific factors or conditions, or simply because they are "degraded". This can be done on a site-specific basis; however, we do not have a specific site to consider at this point in time.
16. Page 4, pp 2. While EPA is not opposed to the LWG conducting additional analysis, we caution the LWG that this type of analysis is likely not going to result in any definitive agreements at the FS stage. As mentioned in the memo, final impacts and mitigation analysis will be conducted during remedial design. Thus, for the remedy decision, we will use the available information for a reasonable comparison of alternatives. Further, the reference to COTE is confusing and it is not clear whether the LWG intends to use the COTE tool or a modified COTE. Again, this type analysis may be controversial and the LWG should seriously weigh the costs and benefits of doing too detailed analysis at this stage of the process.
17. Page 4, pp 3, sentence 3. NMFS has not vetted the salmon calculator thus far. EPA again cautions the LWG that this type of analysis is likely not going to result in any definitive agreements at the FS stage. It should be noted that EPA believes that this type of analysis may be controversial and the LWG should seriously weigh the costs and benefits of doing too detailed analysis at this stage of the process.
18. Page 5, pp 2. This memo does not describe the process of including factors that could reduce the need for mitigation, which would be considered indirect mitigation costs. For example, if there is currently a shallow water habitat and dredging is being considered that would result in deep water habitat, filling back to same grade with similar substrate surface would re-establish the shallow water habitat and reduce the need for mitigation. However, the cost of the fill needs to be considered in the FS. This type of preferential on-site mitigation has more value than off-site mitigation and needs to be considered in the FS.
19. Page 5, pp 4. It is unclear why the LWG is discussing mitigation banking for the draft FS. At this point, the draft FS needs to consider various alternative actions and the effectiveness, implementability, and cost of mitigating those actions, with a preference for on-site mitigation (e.g., what would it take to restore the habitat value that was lost due to the proposed remedial

activity and what is the feasibility and associated cost). Banking has nothing to do with this analysis – the price someone is willing to pay for a banked credit is irrelevant to mitigation for the CERCLA action. The mitigation credit costs for Oregon (New Forests, 2010) could be used as a comparative off-site cost to actual cost, but those costs could increase as the demand increases for mitigation since it is a market-based cost. Consequently, EPA believes a more valid estimate would include actual mitigation costs incurred for similar projects in the lower Willamette River or lower Columbia River basins (e.g., Terminal 4 Removal Action, Zidell Moody Avenue, etc.).

20. Page 5, Cost Estimates for Mitigation. This discussion is more appropriately placed in the FS Tools for cost and should be integrated with remedial actions as part of capital costs for each alternative. This document seems to assume that the cost would be apportioned on a per credit basis, where EPA views the costs apportioned to the real cost of constructing the required mitigating habitat.
21. Page 6, pp 3, sentences 2 & 3. Mitigation at the 4th field scale will not work. Upper Willamette River (UWR) stocks or Lower Columbia River (LCR) stocks could be omitted. Since both UWR and LCR stocks will need to be mitigated for in any action that decreases habitat values in Portland Harbor, this (along with the life stages of the ESUs/DPSs affected) should be taken into account when selecting mitigation sites.
22. Page 6, pp 3, last sentence. Further clarification or justification is needed for EPA's understanding of this statement. Remedial costs should not be double counted through mitigation costs. The cost of removal will be the same, only the mitigating costs should be compared. Again, it is likely that more off-site area will be needed to mitigate to compensate for on-site actions than on-site mitigation, so it would seem that the cost of off-site mitigation would be the greater of the two.